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Taylor F Allison* (tfallis2@ncsu.edu), 7212 Kennebec Rd, Willow Spring, NC 27592. *Some Results on Permutation Patterns*. Preliminary report.

This talk will consist of recent work done in the area of permutation patterns. One such direction is in the area of pattern avoidance over set partitions, particularly 123-avoiding set partitions. We will discuss a method for counting these partitions, particularly for the 3-partition problem, as well as the $n/2$ partitions of size 2 (domino partitions). Another area of research is comprised of sorting random permutations with different sorting mechanisms. One of the sorting mechanisms studied was homing, which involves selecting an element and sorting it to its “home”. Our results include homing in n -dimensions, homing on multiset permutations, or “rankings”, and a conjecture about the number of steps required to home these multiset permutations. (Received September 22, 2011)